

Appln. No.: 10/799,315
Amendment Dated March 23, 2005
Reply to Office Action of October 27, 2004

GRY-122US

Amendments to the Specification:

Please replace the paragraph [0011] with the following rewritten paragraph [0011]:

[0011] It is also possible to increase the air charge of an engine taking advantage of a so-called quarter-wave acoustic tuning in the system formed by the primary tubes of the intake distributor. During the closing of the intake valves, the abrupt stopping of the movement being introduced from the air column present in the primary tube associated with this valve generates an overpressure wave which propagates toward the inlet of the primary tube. This wave is then reflected, changing its sign (depression wave), because the end of the primary tube is open over a considerable volume: the "plenum" of the distributor. When the depression ~~wave-wave~~ arrives at the closed valve, it is reflected without changing its sign. It again reaches the open end of the primary tubes and is then reflected as an overpressure wave.

Please replace the paragraph [0013] with the following rewritten paragraph [0013]:

[0013] The velocity of propagation of the waves in the primary ports being conventionally designated by C_0 , the propagation time of a wave from one end to the other end of a primary tube having a length l_1 is: $t = 2l_1/C_0$. Considering the change in the sign of the wave at the time of its reflection in the plenum, the wave must perform an even number of back-and-forth movements in the same port to generate an overpressure at the valve. If the subsequent opening of the valve takes place at the end of a time that is a multiple of $4 * l_1/C_0$, the acoustic wave will have a beneficial effect on the opening of the intake valve.

Please replace the paragraph [0056] with the following rewritten paragraph [0056]:

[0056] The time between an overpressure wave and a depression ~~wave-wave~~ is consequently $2l_1/C_0$. The beneficial zone in which the overpressure has its maximum in the cylinder is consequently around the maximum overpressure and has a duration of $\pm l_1/C_0$ relative to this maximum.